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(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0206096 A1**
Browne et al. (43) **Pub. Date: Sep. 22, 2005**(54) **ACTIVE MATERIAL BASED SEAL ASSEMBLIES****Related U.S. Application Data**

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Correspondence Address:

KATHRYN A. MARRA
General Motors Corporation
Legal Staff, Mail Code 482-C23-B21
P.O. Box 300
Detroit, MI 48265-3000 (US)(57) **ABSTRACT**

Active seal assemblies employing active materials that can be controlled and remotely changed to alter the seal effectiveness, wherein the active seal assemblies actively change modulus properties such as stiffness, shape orientation, and the like. In this manner, in seal applications tailored for vehicles such as in a vehicle door application, door opening and closing efforts can be minimized yet seal effectiveness can be maximized.

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